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Optimisation of the usage of LHC and local computing resources in a multidisciplinary physics department hosting a WLCG Tier-2 centre

We present the approach of the University of Milan Physics Department and the local unit of INFN to allow and encourage the sharing among different research areas of computing, storage and networking resources (the largest ones being those composing the Milan WLCG Tier-2 centre and tailored to the needs of the ATLAS experiment).

Computing resources are organised as independent HTCondor pools, with a global master in charge of monitoring them and optimising their usage. The configuration has to provide satisfactory throughput for both serial and parallel (multicore, MPI) jobs. A combination of local, remote and cloud storage options are available. The experience of users from different research areas operating on this shared infrastructure is discussed.

The promising direction of improving scientific computing throughput by federating access to distributed computing and storage also seems to fit very well with the objectives listed in the European Horizon 2020 framework for research and development.

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